

Docket No. 4605-001

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PATENT

**THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

| | |
|---|---------------------------|
| In re Application of | |
| Inventors: John BLUMENTHAL et al | : Confirmation No.: 3576 |
| U.S. Patent Application No. 10/647,895 | : Group Art Unit: 3617 |
| Filed: August 26, 2003 | : Examiner: Andrew Wright |
| For: METHOD OF AND APPARATUS FOR AERATING BODIES OF WATER | |

REVISED BRIEF ON APPEAL

MailStop POBA
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Further to the Notice of Non-Compliant Appeal Brief mailed February 3, 2006, the Appeal Brief, Amendment and Declaration filed December 13, 2005 and the Notice of Appeal filed October 13, 2005 in connection with the above-identified application on appeal, herewith is Appellant's Revised Brief on Appeal.

To the extent necessary, Appellant hereby requests any required extension of time under 37 C.F.R. §1.136 and hereby authorizes the Commissioner to charge any required fees not otherwise provided for to Deposit Account No. 07-1337.

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TABLE OF AUTHORITIES**Cases**

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| <i>In re Gordon</i> , 733 F.2d 900,902, 221 U.S.P.Q 1125, 1127 (Fed. Cir. 1984) | 13 |
| <i>In re Lee</i> , 277 F.3rd, 1338, 61 U.S.P.Q. 2d, 1430 (Fed. Cir. 2002). | 14 |

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I. Real Party in Interest

The real party in interest is The Power House, Inc., a corporation of Maryland

II. Related Appeals and Interferences

There are no related appeals and/or interferences.

III. Status of Claims

Claims 18, 19 and 30 are allowed.

Dependent claims 22-29 are objected to, but are indicated as containing allowable subject matter.

Claims 15-17, 20, 21 and 31-34 are rejected.

Method claims 1-14, withdrawn from consideration by the Examiner as being directed to an invention separate and distinct from the invention of the pending apparatus claims, have been cancelled, with the right to file a divisional application thereon.

IV. Status of Amendments

The amendment after Final Rejection was not entered. Appellants submit herewith an Amendment canceling claims 35-38. The Claims Appendix and this Brief are prepared on the presumption the Amendment will be entered.

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V. Summary of Claimed Subject Matter

The subject matter of claim 15 is concerned with a propelled water craft 10 (page 9, paragraph 0031, Figures 1-3), having a water pumping device 29 carrying a sheath 68 (page 10, paragraph 0033, second sentence, page 12, paragraph 0036, last line). Sheath 68 includes a propeller 74 or 76 that is turned while water craft 10 is moving forward in a body of water (sentence bridging pages 10 and 11). In response to propeller 74 or 76 turning, and while water craft 10 is moving forward in the body of water, water is sucked from the body of water into the sheath interior via at least one of openings 82 and 86. Propeller 74 or 76 forces the sucked water upwardly and through opening 81 at the top of the sheath, below the surface of the body of water (page 11, paragraph 0034). As a result, the water forced through opening 81 has a speed greater than the speed of the water sucked into sheath 68, and air bubbles are induced in the water above opening 81 (page 11, paragraph 0034), causing the body of water to be aerated (page 11, paragraph 0034, penultimate line; page 1, paragraph 0002, lines 2 and 3; page 8, paragraph 0032, second sentence).

Claim 16 requires the sheath 68 and propeller 74 or 76 are arranged so the propeller turns about an axis tilted at an angle in the range of 60° to 90° relative to the surface of the body of water while water craft 10 is moving forward in the body of water (page 16, paragraph 0042, last sentence).

Claim 17 requires the water pumping arrangement to include a plurality of sheaths 68 (¶0010, p. 10, ¶0033, first two sentences) each including a propeller 74, 76 adapted to be turned. The sheaths 68, water craft 10 and propellers 74, 76 are arranged for causing the propellers 74, 76 while turning and while the water craft 10 is moving forward in the body of

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water to (a) suck water from the body into the sheath interior via at least one opening in the sheath, (b) force the sucked water upwardly and (c) force the upwardly forced water through another opening 81 in the sheath below the surface of the body of the water (§0010, §0033, 0034). This causes the water forced through the another opening 81 to (i) have speed greater than the speed of the water sucked into the sheath and (ii) cause air bubbles to be induced in the water above the another opening (§s 10 and 34).

Claim 20 indicates that during steady state operation of propellers 74 and 76, the upper edge of sheath 68 at opening 81 is maintained about 4 to 6 inches below the water surface, while water craft 10 is moving forward in the body of water. As a result, the bubbles striking the water surface have the desired velocity to achieve aeration (page 16, paragraph 0042, first two sentences).

Claim 21 indicates that during steady state operation, inlets 86 of sheaths 68 are preferably about 24-30 inches below the water surface. This is advantageous in a typical situation in which the water body depth is less than about 10 feet (page 4, paragraph 0008, second sentence; page 10, paragraph 0033, third sentence; and page 16, paragraph 0042, second and third sentences.)

Claim 31 requires the water craft 10 to be a catamaran (§0031, first sentence).

Claims 32 and 33 require a structure that carries at least one of the sheaths to be forward of the forward end of the craft and to be pivotable relative to the craft longitudinal axis. These limitations are provided by pole 30 that carries boom 26, on which are mounted chains 60, 61 and 62, that in turn carry water pumping device 29.2 forward of the forward end of water craft 10. Pole 30 is pivotable relative to the longitudinal axis of the catamaran (page 13, paragraph 0038).

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Claim 34 requires a vertically extending flexible connector to be between the sheath 68 and craft 20, a requirement satisfied with chains 60-62 and 70-72 (¶0036).

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VI. Grounds of Rejection to be Reviewed on Appeal

A. The rejection of claims 15, 16 and 34 under 35 U.S.C. §102(b) as being anticipated by Springston, U.S. Patent 4,247,261.

B. The rejection of claims 15, 17, 20, 21 and 31-33 under 35 U.S.C. §103(a) as being obvious as a result of Springston.

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VII. Argument

A. Claims 15, 16 and 34 are not anticipated under 35 U.S.C. §102(b) by Springston, U.S. Patent 4,247,261.

A proper rejection under 35 USC §102(b) requires a single reference to include every claimed element directly or inherently. It is well established that every word of a claim must be considered. *In re Wilson*, 1424 F.2d 1382,1385, 165 U.S.P.Q. 494,496 (CCPA 1970). There is nothing wrong with functional statements in a claim, and functional statements are to be encouraged, *In re Swinehart*, 166 F.2d 210, 169 U.S.P.Q. 226 (CCPA 1971). Bearing the foregoing in mind, the rejection of claim 15 under 35 U.S.C. §102(b) based on Springston is incorrect, because Springston fails to disclose a propeller that turns while a watercraft is moving forward in a body of water, as claim 15 requires.

In particular, independent claim 15, upon which the remaining rejected claims depend, distinguishes over Springston (the admitted prior art) by requiring a sheath, watercraft and propeller to be arranged for causing the propeller while turning and while the watercraft is moving forward in a body of water to (a) suck water from the body of water into the sheath interior via at least one opening in the sheath, (b) force the sucked water upwardly, and (c) force the upwardly forced water through another opening in the sheath below the surface of the body of the water for causing water forced through the opening to (i) have speed greater than the speed of the water sucked into the sheath and (ii) cause air bubbles to be induced in the water above the another opening. As stated on page 18, in the last sentence of ¶0044 of the application as filed, the forward motion of water craft 10 has a synergistic effect on the aeration

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of the body of water because the forward motion (1) induces greater bubbling and aeration of the water in the body of the water being purified than is achieved by an essentially stationary pumping device including a sheath and turning propellers, and (2) enables a relatively large body of water to be purified.

To meet the requirements of claim 14, the Final Rejection relies on a statement appearing in column 4, line 43-55 of Springston. This portion of Springston indicates water pumping device 20 is suspended from a dock to maintain an area adjacent to the dock pilings free of ice. Electric drive motor 30 is connected to a conventional power source located on the dock. The reference goes on to state that the water pumping device can be operated in a position at rest at the bottom of the body of water, and that such mode of operation is particularly suitable when the water pumping device is suspended from a boat. However, the rejection of claim 15 based on 35 U.S.C. §102(b) does not meet every word of claim 15, because Springston has no disclosure of a boat moving forward in a body of water while the propeller is turning. The Examiner does not allege such operation is inherent in the Springston arrangement. Consequently, claim 15 is improperly rejected under 35 U.S.C. §102(b).

The final Office Action states that the foregoing limitations of claim 15 recite an intended use, and that a recitation of intended use of a claimed invention must result in a structural difference between the claimed invention and the prior art to patentably distinguish the claimed invention from the prior art. The rejection goes on to state that if a prior art structure is capable of performing an intended use, it meets the claim.

The statements in the final Office Action that a prior art structure that is capable of performing an intended use meets the claim, and that the Springston sheath could be used while the craft is moving forward, are inconsistent with propositions set forth in *In re Mills*, 916 F.2d.

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680, 16 U.S.P.Q. 2d 1430 (Fed. Cir. 1990). In *Mills*, the broadest claim was directed to an apparatus for producing an aerated cementitious composition. The essence of the *Mills* invention was described by the Court as the ability to aerate a cementitious composition by driving an output pump at a capacity greater than the feed rate, thereby drawing air into the composition. The aeration produced a composition with substantially lower density than standard cementitious composition mixing ingredients. The claim defined this relationship by reciting:

drive motor means connected through gear box means providing a pumping capacity of the pump means greater than the feed rate of the ingredients to the mixing chamber provided by the feed means, such that in operation air is drawn into the mixing chamber, and entrained in the mixed ingredients.

The Court noted that the apparatus claimed by *Mills* differed from that of the prior art relied on by the Patent and Trademark Office because the claimed feed means can run at a variable speed that does not require the motor connected to the pump to be run at a lesser speed, "such that in operation air is drawn into the mixing chamber and air entrained in the mixed ingredients." The Court ruled the foregoing quoted claim language to enable the *Mills* apparatus to be patentable over the only applied reference because the functional statement was not disclosed by the sole reference relied on by the Patent and Trademark Office

The situation in the present case is similar to that of *Mills* because claim 15 requires the water craft to move forward in a body of water while the propeller is turning, to suck water into the sheath interior, to force the sucked water upwardly, and force the upwardly forced water through another opening in the sheath for causing the water forced through the another opening

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to have a speed greater than the speed of the water sucked into the sheath and cause air bubbles to be induced in the water above the another opening. Because the watercraft is moving forward while the propeller is turning, improved aeration of the water is provided. As in the Mills case, Appellants attain improved aeration not attained by the prior art Springston arrangement. The improvement occurs as a result of the forward movement of the craft while the propeller is turning.

Claims 16 and 34, being dependent on claim 15, are allowable with claim 15.

B. The rejection of claims 15, 17, 20, 21 and 31-33 as being unpatentable under 35 U.S.C. §103(a) over Springston 4,247,261 is incorrect.

Springston does not render the combinations of claims 15, 17, 20, 21 and 31-33 obvious. The rejection under 35 U.S.C. §103(a) of these claims as being obvious over Springston states Springston discloses the elements of claim 15. However, as discussed *supra*, Springston does not disclose all elements of claim 15.

The unobviousness of claim 15 is demonstrated by the Declaration of John Blumenthal, one of the inventors of the present application. Mr. Blumenthal, now the President of Appellants' Assignee, testified that he has been employed by the owner of the Springston reference for approximately 35 years. During the last 25 years, the owner of the Springston patent has been selling the structure disclosed in the Springston patent. Mr. Blumenthal testified that the device has been used as a deicer for docks and docked boats. Mr. Blumenthal testified that, to his knowledge, when the deicer has been used on boats, the boats have always been docked, and the motors of the deicers were always connected to shore power supplies.

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Mr. Blumenthal testified that the types of boats on which the deicers are carried do not have power supplies sufficient to power the motors of the deicers. As a result, the motors were, to his knowledge, always connected to shore supplies and the deicers have never had the motors thereof driven by a power source while a boat carrying a deicer was underway. Mr. Blumenthal's Declaration is strong evidence of the unobviousness of turning the propellers of the device disclosed in the Springston while the watercraft is moving forward.

The Advisory Action of November 10, 2005, dismisses the Blumenthal Declaration by stating that the Springston apparatus is capable of being used while a boat is moving forward. The fact that the Springston apparatus is capable of being used while the boat is moving forward is not germane to the issue of obviousness. The mere fact that the prior art could be modified does not make the modification obvious unless the prior art suggested the desirability of the modification. *In re Mills, supra*; *In re Gordon*, 733 F2d 900,902, 221 U.S.P.Q 1125, 1127 (Fed. Cir.1984). There is nothing in Springston to indicate the desirability of Appellants' modification. The Examiner has made no allegation that the prior art has suggested the desirability of the modification.

The Advisory Action goes on to state that the fact that the declarant has never seen a boat having the structure of the Springston patent on it "doesn't make it impossible." Of course, the criterion for patentability is not what is possible, but what is obvious. In the present case, the prior art does not suggest the desirability of mounting the Springston device on a watercraft as the watercraft is moving forward in the water, and while the propeller of the Springston device is turning.

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Claim 20 requires another opening of the sheath to be maintained during steady state operation so the propellers are about 4-6 inches below the water surface while the watercraft is moving forward in the body of water. To reject this limitation, the Examiner relies on a statement that the Springston device, in operation, is suspended at a desired depth, for example 3 or 4 feet below the water surface. The Examiner states that this teaching is not limited, and does not exclude shallower depths. The Examiner also states that it would be within the range of knowledge of a skilled artisan to suspend the outlet at any desired depth below the surface.

However, the Examiner provides no rationale for his statements in this regard. The claimed depth assists in providing the desired aeration of the body of water, as indicated in Appellants' disclosure on page 16, paragraph 0042. Since Springston is not interested in aerating a body of water, the Examiner's position that the Springston device can be suspended so the outlet is at any desired depth below the surface is irrelevant to the issue of patentability. Because the Examiner supplies no evidence to support this statement, it does not establish obviousness. The Examiner is advancing a rationale similar to that dismissed by the court in *In re Lee*, 277 F.3rd, 1338, 61 U.S.P.Q. 2d, 1430 (Fed. Cir. 2002).

The statement in the Office Action that during the transient state of lowering the pumping arrangement of Springston to the desired surface, the outlet will necessarily pass through the 4-6 inch depth ignores the requirement of claim 20 for the opening to be about 4-6 inches below the water surface during steady state operation of the propellers, and while the watercraft is moving forward in the body of water.

Claim 21 requires one opening of the sheath to be about 24-30 inches below the water surface during steady state operation of propellers while the watercraft is moving forward in the

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body of water. To reject claim 21, the Office Action alleges it would have been obvious to one of ordinary skill in the art to position the Springston outlet about 24-30 inches below the water surface, at least temporarily, to lower the pumping arrangement from the surface to the desired depth. However, such a statement ignores the claim 21 requirement for steady state operation of the propellers.

To reject claim 33, that depends on claim 32, the Examiner states lines 32 and 34 of Springston are flexible and can pivot relative to the longitudinal axis of the boat. The test for patentability under 35 U.S.C. 103(a) is not what something can do, but what is obvious. The Examiner provides no rationale as to why it would have been obvious to suspend the Springston device so it is forward of the forward end of the craft, and is pivotable relative to the longitudinal axis of the watercraft. Consequently, the rejection of claim 33 is incorrect.

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VIII. Conclusion

The rejection of claim 15 is incorrect because it does not take into proper account the requirements of the claim for a sheath, watercraft and propeller to be arranged for causing the propeller, while turning and while the watercraft is moving forward in a body of water to perform various functions relating to enabling water aeration to occur. The Springston deicer is not disclosed as being on a moving boat, and is not used for water aeration. Blumenthal, who is very familiar with the Springston deicer, has testified the Springston deicer has never been operated in such a manner prior to the present invention.

The obviousness rejections of claims 20, 21 and 33 are incorrect because they do not establish a motivation to arrive at the structures of claims 20, 21 or 33. The rejections of claims 20 and 21 do not adequately consider the requirements of these claims for the sheath openings to be at certain distances below the water surface, while the watercraft is moving forward in the body of water. In addition, the Final Rejection ignores the steady state requirements of claims 20 and 21. The test relied on to make claim 33 obvious is incorrect because no rationale is presented as to why one of ordinary skill in the art would mount the Springston device so that it is forward of the forward end of the craft, and is pivotable relative to the craft longitudinal axis.

Each of the Examiner's rejections has been traversed. Appellant respectfully submits that all claims on appeal are considered patentable over the applied art of record. Accordingly, reversal of the Examiner's Final Rejection is believed appropriate and courteously solicited.

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If for any reason this Appeal Brief is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned, Applicant's attorney of record.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337, and please credit any excess fees to such deposit account.

Respectfully submitted,

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By:



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Date: June 5, 2006

AML:tal

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PATENT**IX. Claims Appendix**

15. A water craft adapted to be propelled comprising a water pumping arrangement including a sheath carried by the water craft, the sheath including a propeller adapted to be turned, the sheath, water craft and propeller being arranged for causing the propeller while turning and while the water craft is moving forward in a body of water to (a) suck water from the body of water into the sheath interior via at least one opening in the sheath, (b) force the sucked water upwardly and (c) force the upwardly forced water through another opening in the sheath below the surface of the body of the water for causing the water forced through the another opening to (i) have speed greater than the speed of the water sucked into the sheath and (ii) cause air bubbles to be induced in the water above the another opening.

16. The water craft of claim 15 wherein the sheath and propeller are arranged so the propeller is adapted to turn about an axis tilted at an angle in the range of 60° to 90° relative to the surface of the body of water while the water craft is moving forward in the body of water.

17. The water craft of claim 15 wherein the water pumping arrangement includes a plurality of the sheaths each including a propeller adapted to be turned, the sheaths, water craft and propellers being arranged for causing the propellers while turning and while the water craft is moving forward in the body of water to (a) suck water from the body into the sheath interior via at least one opening in the sheath, (b) force the sucked water upwardly and (c) force the upwardly forced water through another opening in the sheath below the surface of the body of the water for causing the water forced through the another opening to (i) have speed greater than the speed of the

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water sucked into the sheath and (ii) cause air bubbled to be induced in the water above the another opening.

20. The water craft of claim 15 wherein another opening is arranged to be maintained during steady state operation of the propellers about four to six inches below the water surface while the water craft is moving forward in the body of water.

21. The water craft of claim 15 wherein at least one opening is arranged to be maintained during steady state operation of the propellers about 24 to 30 inches below the water surface while the water craft is moving forward in the body of water.

31. The water craft of claim 15 wherein the water craft is a catamaran.

32. The water craft of claim 15 further including a structure for carrying at least one of the sheaths forward of the forward end of the craft.

33. The water craft of claim 32 wherein the structure is pivotable relative to the longitudinal axis of the craft.

34. The water craft of claim 15 further including a vertically extending flexible connector between the sheath and the craft.

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X. Evidence Appendix

Declaration of John Blumenthal i

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XI. Related Proceedings Appendix

None.

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

JOHN BLUMENTHAL *et al.*

U.S. Patent Application No. 10/647,895

Filed: August 26, 2003

:
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: Confirmation No. 3576
:
: Group Art Unit: 3617
:
: Examiner: Andrew Wright

For: METHOD OF AND APPARATUS FOR AERATING BODIES OF WATER

DECLARATION OF JOHN BLUMENTHAL

I, John Blumenthal, hereby declare as follows:

1. I am currently employed by The Power House, Inc., the owner of Springston, U.S. Patent, 4,247,261. I have been employed by Power House, Inc. for approximately the last 35 years and currently serve as the President of this company.

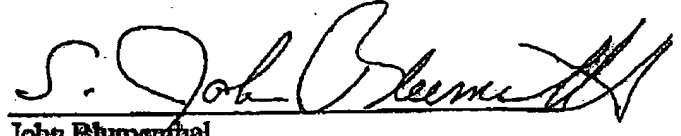
2. Power House, Inc. has been selling a product including the structure disclosed in the Springston patent for approximately the last 25 years. The device has been used as a deicer for docks and for docked boats. To my knowledge, when the deicer has been used on boats, the boats were always docked. The motors of the deicers, to my knowledge, were always connected to shore power supplies. The types of boats on which the deicers are carried do not have power supplies sufficient to power the motors of the deicers. The motors were, to my knowledge, always connected to shore supplies. To my knowledge, the deicers have never had the motors thereof driven by a power source while a boat carrying a deicer was underway.

3. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are

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punishable by fine, or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


John Blumenthal

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